



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants:

**HARKNESS et al.**

Serial No.: 09/955,691

For: DETECTION OF MEDIA  
LINKS IN BROADCAST  
SYSTEMS

Filed: September 19, 2001

Group Art Unit: 2611

Examiner: Jason P. Salce

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**BRIEF ON APPEAL**

Mail Stop Appeal Brief  
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Sir:

Pursuant to the Notice of Appeal mailed July 27, 2004 in connection with the above-identified patent application, Applicants respectfully submit the instant Brief on Appeal in accordance with 37 C.F.R. § 41.37.

**I. Real Party In Interest**

The above-referenced patent application has been assigned to Nielsen Media Research, Inc., who is the real party in interest to this appeal. The assignment has been recorded in the United States Patent and Trademark Office ("PTO") at Frame 0127 of Reel 014164.

## **II. Related Appeals and Interferences**

The applicant is unaware of any related appeals or interferences.

## **III. Status of the Claims**

Currently, claims 1-24, 26-33 and 48-50 are pending in this application. The pending claims are presented in the Claims Appendix of this Brief. Claims 1-24, 26-33 and 48-50 stand rejected. Therefore, claims 1-24, 26-33 and 48-50 form the subject matter of this appeal.

By way of background, this application is a continuation-in-part of US Patent application serial number 09/226,521, which was filed on January 7, 1999. The claims filed in the application on appeal were very similar to the claims filed in the parent application<sup>1</sup>. To eliminate this unwarranted duplication, the applicants abandoned the parent application without prejudice to pursuing the claims of that application in the current application.

The application on appeal was filed on September 19, 2001.

On August 1, 2003, the Examiner issued a first substantive Office action rejecting all of the claims as filed as being unpatentable over one or more of Shoff et al., U.S. Patent 6,240,555 (Shoff) and Menard et al., U.S. Patent 6,061,056 (Menard). On December 5, 2003, the applicants filed a response to the first substantive Office action demonstrating that the rejections based on Shoff and Menard were completely devoid of merit.

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<sup>1</sup> The meaning of the term “media link” was been clarified, and possibly broadened, in the specification of this continuation-in-part application.

The Examiner agreed, withdrew the rejections based on Shoff and Menard, and issued a new Office action rejecting all of the pending claims as unpatentable over one or more of Thomas et al., U.S. Patent 5,481,294, Lert, Jr. et al., U.S. Patent 4,677,466, Killian, U.S. Patent 6,163,316, and Lu et al., U.S. Patent 5,594,934; (all of which, except for Killian, are commonly owned with the current application by the Nielsen companies). The Office action was made “final.”

Because the applicants and the Examiner had arrived at diametrically opposed positions, the applicants had little choice but to file a notice of appeal. That notice was filed on July 27, 2004. Accordingly, claims 1-24, 26-33 and 48-50 stand rejected and form the subject of this appeal.

#### **IV. Status of the Amendments**

The only amendments that were made in this application have been entered. No amendments were filed after the final Office action. No further amendments are necessary.

#### **V. Summary of the Claimed Subject Matter**

Although reference numerals and specification citations are inserted below in accordance with C.F.R. 41.37(c)(1)(v), these references numerals and citations are merely examples of where support may be found in the specification for the terms used in this section of the brief. There is no intention to in any way suggest that the terms of the claims are limited to the examples in the specification. Although, as demonstrated by the reference

numerals and citations below, the claims are fully supported by the specification as required by law, it is improper under the law to read limitations from the specification into the claims. Pointing out specification support for the claim terminology as is done here to comply with rule 41.37(c)(1)(v) does not in any way limit the scope of the claims to those examples from which they find support. Nor does this exercise provide a mechanism for circumventing the law precluding reading limitations into the claims from the specification. In short, the reference numerals and specification citations are not to be construed as claim limitations or in any way used to limit the scope of the claims.

In the invention as defined in claim 1, a detection apparatus (page 10, line 5) to identify a program is recited as comprising: a tuner 14 to tune to the program (page 13, lines 2-5); a meter 17 coupled to the tuner 14 to record a media link embedded in the program tuned by the tuner 14 (Id. At lines 8-16); and a program identifier 32 to identify the program tuned by the tuner 14 based on the media link recorded by the meter 17 (page 16, lines 1-4).

In the invention as defined in claim 2, the tuner 14 recited in claim 1 is defined to include a scanning tuner (page 29, lines 14-19).

In the invention as defined in claim 3, the scanning tuner of claim 2 is defined to tune to a plurality of channels (Id.), and the meter 17 is arranged to record media links from programs carried in the tuned channels (page 29, lines 6-19).

In the invention as defined in claim 4, the program identifier 32 of claim 1 is arranged to identify the program directly from the media link (page 16, lines 20-21).

In the invention as defined in claim 5, the program identifier (32) of claim 1 is arranged to identify the program by accessing a content provider (page 17, lines 5-10).

In the invention as defined in claim 6, the program identifier 32 of claim 1 is arranged to receive a manual identification of the program (Id).

In the invention as defined in claim 7, the media link of claim 1 is defined to be a URL (page 1, lines 17-20).

In the invention as defined in claim 8, the media link of claim 1 is defined to be a code referenced to a URL (page 2, lines 2-6).

In the invention as defined in claim 9, the media link of claim 1 is defined to be a trigger (page 2, lines 4-9).

In the invention as defined in claim 10, a data acquisition system (page 10, line 11) to acquire identifying data from a program is recited to comprise: a tuner 14 to tune to the program (page 13, lines 2-5); and a meter 17 coupled to the tuner 14 and arranged to capture first and second program identifying data identifying the program tuned by the tuner 14 (page 13, line 8 – page 14, line 2). The first program identifying datum is a media link embedded in the program which, when activated, initiates a request for information from a content provider via a network (page 13, lines 9 --18 and page 2, lines 2-6). The second program identifying datum is a program identifying datum other than a media link (page 13, line 19 – page 14, line 2).

In the invention as defined in claim 11, the tuner 14 of claim 10 comprises a scanning tuner (page 29, lines 14-19).

In the invention as defined in claim 12, the scanning tuner of claim 11 is recited to tune to a plurality of channels (Id.), the meter 17 is arranged to capture media links from programs in the tuned channels (page 29, lines 6-19), and the meter 17 is arranged to capture second program identifying data identifying programs in the tuned channels (page 13, line 19 – page 14, line 2).

In the invention as defined in claim 13, the data acquisition system of claim 10 is recited to additionally include a program identifier 32 arranged to identify the program from the first and/or second program identifying data (page 16, lines 1-4).

In the invention as defined in claim 14, the program identifier of claim 13 is arranged to identify the program by comparing the first and/or second program identifying data to corresponding first and/or second reference identifying data (page 16, lines 1-14, and page 17, lines 13-20).

In the invention as defined in claim 15, the second program identifying datum of claim 10 is a signature extracted from the program (page 13, line 19 – page 14, line 1).

In the invention as defined in claim 16, the data acquisition system of claim 10 is arranged to keep the second program identifying datum only if the meter fails to acquire the first program identifying datum (Id.).

In the invention as defined in claim 17, the data acquisition system of claim 10 further includes a program identifier 32 arranged to identify the program directly from the media link (page 16, lines 1-4 and 20-21).

In the invention as defined in claim 18, the data acquisition system of claim 10 further includes a program identifier 32 arranged to identify the program by activating the media link to initiate the request for information from the content provider (page 17, lines 5-10).

In the invention as defined in claim 19, the data acquisition system of claim 10 further includes a program identifier 32 arranged to receive a manual identification of the program (Id.).

In the invention as defined in claim 20, the media link of claim 10 is a URL (page 1, lines 17-20).

In the invention as defined in claim 21, the media link of claim 10 is a code referenced to a URL (page 2, lines 2-6).

In the invention as defined in claim 22, the media link of claim 10 is a trigger (page 2, lines 4-9).

In the invention as defined in claim 23, the meter 17 of claim 10 is arranged to capture the second program identifying datum from the program only in the event that the meter is unable to capture the first program identifying datum from the program (page 13, line 19 – page 14, line 1).

In the invention as defined in claim 24, a program identification system (page 11, lines 1-2) is recited. The system comprises: a tuner 14 tunable to at least one of a plurality of channels (page 13, lines 2-5); and a meter 17 coupled to the tuner 14 (page 13, lines 8-10). The meter 17 is arranged to detect a media link embedded in a program carried in a channel tuned by the tuner 14 and to extract a broadcast signature from the program (page 13, line 10 – page 14, line 2). The recited system also includes a

comparator arranged to generate a subset of reference signatures from a library of reference signatures based upon the media link, and to compare the broadcast signature extracted by the meter 17 to the subset of reference signatures (page 11, lines 8-11, page 21, line 18 – page 22, line 10, and page 24, lines 14-19).

In the invention as defined in claim 26, the media link of claim 24 is a URL (page 1, lines 17 -20).

In the invention as defined in claim 27, the media link of claim 24 is a code referenced to a URL (page 2, lines 2-6).

In the invention as defined in claim 28, the media link of claim 24 is a trigger (page 2, lines 4-9).

In the invention as defined in claim 29, a program identification system is recited (page 11, lines 1-3). The system comprises: a tuner 14 tunable to at least one of a plurality of channels (page 13, lines 2-5); and a meter 17 coupled to the tuner 14 (page 13, lines 8-16). The meter 17 is arranged to detect closed captioning information from a program carried in a channel tuned by the tuner 14 and to extract a broadcast signature from the program (page 22, lines 3-10). The system also includes a comparator arranged to compare the broadcast signature to a reference signature (page 11, lines 8-11). The reference signature is selected from a library of reference signatures based upon the closed captioning information (page 21, line 18 – page 22, line 10).

In the invention as defined in claim 30, if the broadcast signature of claim 24 does not have an embedded media link, the comparator is arranged to



generate a second subset of reference signatures from the library of reference signatures based upon a hash code, and to compare the broadcast signature extracted by the meter 17 to the second subset of reference signatures (page 25, lines 3-12).

In the invention as defined in claim 31, the reference signature of claim 24 is recited to include an identification of the program (page 17, lines 15-20).

In the invention as defined in claim 32, the broadcast signature of claim 24 is recited to include the channel and a time at which the broadcast signature is extracted (page 14, lines 11-21).

In the invention as defined in claim 33, the reference signature of claim 32 includes an identification of the program (page 17, lines 15-20).

In the invention as defined in claim 48, the media link of claim 1 is a hyperlink (page 1, lines 17-18).

In the invention as defined in claim 49, the media link of claim 10 is a hyperlink (page 1, lines 17-18).

In the invention as defined in claim 50, the media link of claim 24 is a hyperlink (page 1, lines 17-18).

## **VI. Grounds of Rejection To Be Reviewed on Appeal**

The grounds of rejection to be reviewed on appeal are as follows:

- Ground 1: The Examiner's contention that a "broadcast signature" is a "media link."
- Ground 2: Whether it is obvious to use a media link embedded in a broadcast program to identify the broadcast program.

- Ground 3: The Examiner's contention that Col. 7, lines 36-61 of Thomas et al., U.S. Patent 5,481,294 describes a comparator to generate a subset of reference signatures from a library of reference signatures based upon a media link embedded in a program as recited in claim 24.
- Ground 4: The Examiner's contention that the combination of Thomas et al., U.S. Patent 5,481,294 and Killian, U.S. Patent 6,163,316 meets the recitations of claim 29.

## **VII. Argument**

### **Ground 1. The Examiner's Contention That A "Broadcast Signature" Is A "Media Link" Is In Error**

The Examiner's rejections of independent claims 1, 10 and 24 are based upon his unreasonably overbroad construction of the claim term "media link." In particular, in rejecting these claims, the Examiner argues:

Thomas also discloses a meter coupled to the tuner to record a media link embedded in the program tuned by the tuner (see reference signature extractor 72 in Figure 2C and Column 12, lines 45-51). *The examiner notes that the signature extracted represents a portion of program tuned to and therefore is related (linked) to a piece of media (the television program).*

(Final Office action, Page 2, paragraph 1, lines 5-9)(emphasis added). Thus, the rejections of independent claims 1, 10 and 24 rest upon the Examiner's premise that a broadcast signature is a media link. However, while this construction of the term "media link" is certainly a broad construction, it is not a reasonable construction of that language.

The Examiner's claim construction is unreasonable for several reasons. First, a person of ordinary skill in the art reading the instant application would

never understand the term “broadcast signature” to be a “media link.” A program signature is a representation of a portion of the broadcast program. This point is underscored by the usage of the term “broadcast signature” in Thomas, U.S. Patent 5,481,294 (“Thomas”). In particular, Thomas states:

Several broadcast measurement systems have been suggested which do not detect embedded codes in order to identify programs, but which instead monitor program content. These systems generally receive programs to be monitored at a measurement site, extract broadcast signatures from the programs, and compare these broadcast signatures with corresponding reference signatures previously extracted from reference copies of these programs (e.g., distribution tapes) or from previous broadcasts of the programs to be monitored.

(Thomas, Col. 3, lines 35-44)(emphasis added). Thus, the Thomas Patent makes it clear that a “broadcast signature” is not a code embedded in a broadcast signal, but instead is a representation of the broadcast signal itself. This is consistent with the long established industry standard usage of the term “broadcast signature” as evidenced by the following passage from Nielsen’s 1980 patent, Lert et al., U.S. Patent 4,230,990:

Pattern recognition consists of two basic processes: feature extraction and classification. The feature extraction process is applied to the program signal to produce a digital signature of a given program: certain features of the program signal are measured, and these measured values are used to characterize that program. The analog program signal is normally digitized by being passed through an analog-to-digital converter, and program information (either audio or video) is sampled and processed using some non-linear transform (which can be done either digitally or in analog) to produce a digital data set which is essentially unique to a

particular program. Such a data set is commonly referred to as a "signature", "feature set", or "feature vector", terms which are to be considered as equivalent and are used interchangeably in this application.

(Lert et al., U.S. Patent 4,230,990, Col. 3, line 55 – Col. 4, line 2). In view of this twenty plus year history of the usage of the term “broadcast signature” in this art, it is clear that a person of ordinary skill in the art would have no difficulty recognizing a broadcast signature as a digital representation of a portion of a broadcast program.

The Examiner may not take issue with this definition. Nevertheless, he argues that a broadcast signature is a “media link” because a broadcast signature “represents a portion of program tuned to and therefore is related (linked) to a piece of media (the television program).” In other words, the Examiner argues that because a broadcast signature is “related to” a media program (e.g., a television program), it is “linked” to the media program and, thus, is a “media link.” In effect, the Examiner has deconstructed the term “media link” into the words “media” and “link,” argued that “linked” equals “related,” and thus, concluded that a “media link” is anything related to media. The problem with this approach is, of course, that it attempts to construe the term “media link” in complete isolation from the applicant’s specification.

In this regard, the Board is respectfully reminded that the “fact that claims receive their broadest reasonable meaning during the patent examination process does not relieve the PTO of its essential task of examining the entire patent disclosure to discern the meaning of claim words and phrases.” Rowe v. Dror, 42 U.S.P.Q.2d 1550, 1555 (Fed. Cir. 1997).

Further, “claims are read in light of the disclosure of the specification on which they are based, not in a vacuum.” In re Dean, 130 U.S.P.Q. 107, 110 (C.C.P.A. 1961). The Examiner’s claim construction does not follow these legal principles, but instead gives the term “media link” an intentionally overbroad and unreasonable meaning.

Applicants’ specification expressly defines the term “media link” as follows:

as used herein, media links include URLs embedded in video and/or audio, surrogate URLs, or any other links in video and/or audio that link a content recipient to content provided by a content provider (such as a Web site) or to content provided elsewhere in the video and/or audio whether such content is stored in cache or not.

(Specification, Page 1, line17 – Page 2, line 4). Thus, it is quite clear that the applicants have defined the term “media link” to be something far less than “anything related to media.” Instead, the definition of “media link” is unmistakably clear. It is any link that links a content recipient to additional content. This is consistent with industry usage of the term “link,” where persons of ordinary skill in the art commonly refer to hyperlinks (which, of course, are references to additional content in the form of web pages) as “links.” Since a broadcast signature is merely a representation of a portion of a broadcast signal, it does not reference additional content or in any way link a content recipient to additional content. Thus, a broadcast signature cannot be said to be a “media link” as used in the specification and by persons of ordinary skill in the art.

This point is borne out throughout the applicants' specification. Specifically, in the examples given in the specification, the disclosed apparatus and methods are capable of detecting media links and extracting broadcast signatures (See, e.g., specification, page 13, lines 8-10, and Page 13, line 19- Page 14, line 2). Therefore, it is quite plain that the applicants' specification uses the term "media link" to be something different than a program signature and that a person or ordinary skill in the art reading applicants' specification would never understand the term media link to refer to a broadcast signature. As such, the rejections of claims 1, 10 and 24, and the claims depending therefrom, are all based on an unreasonably overbroad construction of the term "media link." Consequently, the rejections of claims 1-24, 26-28, 30-33, and 48-50 are all fatally flawed and must be withdrawn.

**Ground 2.     It Is Not Obvious To Use A Media Link  
For Program Identification**

As noted in the proceeding section, the proper construction of the term "media link" is a link or reference to additional content. As is well known, such links are used to provide additional content to the content recipient utilizing the link. As explained in the applicants' specification:

It is also expected that this video and/or audio will contain media links. Accordingly, if a user of a computer, digital television, set top box, or other video and/or audio receiving device is viewing a program of interest, and desires to access other information associated with the program, the user can click on the program ...with the result that additional information will be downloaded to the user's appliance.

(Specification, Page 8, line 17- Page 9, line 6). Thus, for example, a historical program on the American Civil War might include a link to a website with additional information about Abraham Lincoln, and activating the embedded link might provide the content recipient with information about Abraham Lincoln that is not otherwise present in the broadcast program.

Media links embedded in broadcast programs are, thus, intended as a vehicle to couple content recipients to additional content sources such as web pages available on the Internet. Media links are, by definition, intended to uniquely identify the linked content (e.g., the referenced web page), not the program within which they are embedded. It is far from obvious that a reference to another source of content (i.e., a media link) embedded in a broadcast program signal can be useful for identifying the broadcast signal itself. While content sources linked to a broadcast program via an embedded media link are likely to contain content that is related to the general subject matter of the program in which they are embedded (e.g., a web page regarding Abraham Lincoln embedded in a Civil War documentary), this is not necessarily so. Moreover, embedded media links, by definition, identify media different from the program in which they are embedded, and, thus, are not obviously useful to identify the specific program in which they are embedded. As a result, the mere fact that it was known in the prior art to embed media links in broadcast programs as demonstrated by the Killian reference and by the applicants' statements in the background section of the

application on appeal, does not make it obvious to use such embedded links as a vehicle for identifying broadcast programs.

Similarly, the fact that Thomas embedded program identification codes uniquely identifying the programs in which they are embedded precisely for the purpose of identifying those programs when received by monitored receiving equipment, does not make it obvious that media links to content other than the broadcast programs in which they are carried can be used to identify the programs within which they are embedded. Indeed, the only teaching for using media links embedded in programs to identify the programs in which they are embedded lies in the applicants' application on appeal. Of course, such hindsight reconstruction of the applicants' claimed invention is improper and cannot form the basis for rejecting the claims on appeal.

**A. Claims 1-9 and 48 Are Patentable**

Against this background, it is clear that independent claim 1, and all claims depending therefrom, are allowable over Thomas, Killian, Lert and Lu. For example, claim 1 recites a detection apparatus including a meter to record a media link embedded in a tuned program, and a program identifier to identify the tuned program based on the media link. As demonstrated above, the term "media link" must be construed to cover any link that connects a content recipient to additional content. None of Thomas, Killian, Lert or Lu teaches or suggests a program identifier which employs such a link to identify a tuned program in which the link is embedded. Therefore, with the term



“media link” properly construed, claims 1-9 and 48 are unmistakably patentable over the references cited in the final Office action.

**B. Claims 10-23 and 49 Are Patentable**

Claim 10 recites a meter to capture first and second program identifying data, wherein the first program identifying datum is a media link which, when activated, initiates a request for information from a content provider via a network and the second program identifying datum is program identifying datum other than a media link. As demonstrated above, the term “media link” must be construed to cover any link that connects a content recipient to additional content. None of Thomas, Killian, Lert or Lu teaches or suggests a meter as recited in claim 10. Therefore, claims 10-23 and 49 are patentable over the reference cited in the final Office action.

**(i) Claims 17-18 Are Patentable**

Claim 17-18 add program identifiers of various attributes to the apparatus of claim 10. Specifically, claim 17 recites a program identifier to identify the program directly from the link; and claim 18 recites a program identifier to identify the program by activating the link. As discussed above, none of the cited references identify a program from a media link embedded in a tuned program as recited in claim 17, or by activating such a link as recited in claim 18. Accordingly, claims 17-18 are patentable over the references cited in the final Office action.

**Ground 3. Thomas Et Al. Do Not Describe A Comparator To Generate A Subset Of Reference Signatures From A Library Based Upon A Media Link Embedded In A Program (Claims 24, 26-28, 30-33 And 50)**

Independent claims 24, and all claims depending therefrom, are also allowable over Thomas, Killian, Lert and Lu. Claim 24 recites a comparator to generate a subset of reference signatures from a library of reference signatures based upon a media link embedded in a program. The final Office action attempts to find such a comparator at Column 7, lines 36-61 of Thomas. However, the noted section of Thomas does not use media links to generate a subset of reference signatures for comparison with a broadcast signature. Instead, it describes a method of reducing the number of unidentified program records by first comparing records containing time stamped identification codes extracted from monitored programs to a database of known identification codes, subsequently comparing extracted broadcast signatures to a database of known program signatures, and then having a human operator review portions of unidentified programs generated from compressed replicas of the same. Nowhere does this passage of Thomas: (1) use a media link; (2) create a subset of reference signatures from a library of reference signatures; (3) create such a subset of reference signatures based on a media link; or (4) compare a broadcast signature to a subset of reference signatures created from a library based upon a media link. Therefore, it is evident that the Examiner's reliance on Column 7, lines 36-61 of Thomas to meet the recitation of claim 24 is misplaced.

As was noted in the Response to the Office action of August 1, 2003, Thomas et al. does disclose performing clustering or other sorting techniques to minimize the size of the reference library (see Thomas et al., Col. 19, lines 18-32, citing to Lert, U.S. Patent 4,677,466). However, Thomas et al. makes no disclosure or suggestion of using a media link embedded in a program to select a subset of the library for comparison to a broadcast signature as recited in claim 24. Further, as also noted in the Response to the Office action of August 1, 2003, the reference to the Lert Patent does not overcome the deficiency of the Thomas et al. Patent. Whereas Lert does disclose comparing signatures against one another to remove duplicates (Col. 5, lines 27-29) and using a hash code representation of the signature to perform a preliminary search for candidate reference signatures (Col. 9, lines 63-65), Lert makes no reference to using a media link extracted from the program to select a subset of reference signatures for comparison to a broadcast signature as recited in claim 24.

In view of the foregoing, the rejections of claim 24 and all claims depending therefrom (i.e., claims 26-28, 30-33 and 50) are based on error and must be overturned.

**Ground 4.    The Combination Of Thomas Et Al., U.S. Patent 5,481,294, And Killian, U.S. Patent 6,163,316, Does Not Meet The Recitations Of Claim 29**

Independent claim 29 is also patentable. The Office action rejected claim 29 as being unpatentable over Thomas et al. when considered in view of

Killian. However, claim 29 recites a program identification system comprising a meter arranged to detect closed captioning information from a program carried in a channel tuned by the tuner and to extract a broadcast signature from the program; and a comparator arranged to compare the broadcast signature to a reference signature selected from a library of reference signatures based upon the closed captioning information. While Killian certainly describes extracting closed captioning information from the vertical blanking interval of a broadcast program, neither Thomas et al. nor Killian contemplate (1) using closed captioning information to select a reference signature from a library, or (2) comparing a broadcast signature of a broadcast program associated with the closed captioning information to the selected reference signature as recited in claim 29. Accordingly, no matter how one combines Thomas and Killian, one would not arrive at the system recited in claim 29, and the rejection of claim 29 must, therefore, be overturned.

In view of the foregoing remarks, it is respectfully submitted that all of the rejections made in the final Office action should be overturned.

Respectfully submitted,

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## VIII. Claims Appendix



1. (Previously Amended) A detection apparatus to identify a program comprising:

a tuner to tune to the program;

a meter coupled to the tuner to record a media link embedded in the program tuned by the tuner; and

a program identifier to identify the program tuned by the tuner based on the media link recorded by the meter.

2. (Previously Presented) The detection apparatus of claim 1 wherein the tuner comprises a scanning tuner.

3. (Previously Amended) The detection apparatus of claim 2 wherein the scanning tuner tunes to a plurality of channels, and wherein the meter is arranged to record media links from programs carried in the tuned channels.

4. (Previously Amended) The detection apparatus of claim 1 wherein the program identifier is arranged to identify the program directly from the media link.

5. (Previously Amended) The detection apparatus of claim 1 wherein the program identifier is arranged to identify the program by

accessing a content provider.

6. (Previously Amended) The detection apparatus of claim 1 wherein the program identifier is arranged to receive a manual identification of the program.

7. (Previously Presented) The detection apparatus of claim 1 wherein the media link is a URL.

8. (Previously Presented) The detection apparatus of claim 1 wherein the media link is a code referenced to a URL.

9. (Previously Presented) The detection apparatus of claim 1 wherein the media link is a trigger.

10. (Previously Amended) A data acquisition system to acquire identifying data from a program comprising:

a tuner to tune to the program; and,

a meter coupled to the tuner and arranged to capture first and second program identifying data identifying the program tuned by the tuner, wherein the first program identifying datum is a media link embedded in the program which, when activated, initiates a request for information from a content provider via a network, and wherein the second program identifying datum is a program identifying datum other than a media link.

11. (Previously Presented) The data acquisition system of claim 10 wherein the tuner comprises a scanning tuner.

12. (Previously Presented) The data acquisition system of claim 11 wherein the scanning tuner tunes to a plurality of channels, wherein the meter is arranged to capture media links from programs in the tuned channels, and wherein the meter is arranged to capture second program identifying data identifying programs in the tuned channels.

13. (Previously Presented) The data acquisition system of claim 10 further comprising a program identifier arranged to identify the program from the first and/or second program identifying data.

14. (Previously Presented) The data acquisition system of claim 13 wherein the program identifier is arranged to identify the program by comparing the first and/or second program identifying data to corresponding first and/or second reference identifying data.

15. (Previously Presented) The data acquisition system of claim 10 wherein the second program identifying datum is a signature extracted from the program.

16. (Previously Presented) The data acquisition system of claim 10 wherein the data acquisition system is arranged to keep the second program identifying datum only if the meter fails to acquire the first program identifying datum.

17. (Previously Presented) The data acquisition system of claim 10 further comprising a program identifier, wherein the program identifier is arranged to identify the program directly from the media link.

18. (Previously Amended) The data acquisition system of claim 10 further comprising a program identifier, wherein the program identifier is arranged to identify the program by activating the media link to initiate the request for information from the content provider.

19. (Previously Presented) The data acquisition system of claim 10 further comprising a program identifier, wherein the program identifier is arranged to receive a manual identification of the program.

20. (Previously Presented) The data acquisition system of claim 10 wherein the media link is a URL.

21. (Previously Presented) The data acquisition system of claim 10 wherein the media link is a code referenced to a URL.



22. (Previously Presented) The data acquisition system of claim 10 wherein the media link is a trigger.

23. (Previously Presented) The data acquisition system of claim 10 wherein the meter is arranged to capture the second program identifying datum from the program only in the event that the meter is unable to capture the first program identifying datum from the program.

24. (Previously Amended) A program identification system comprising:

a tuner tunable to at least one of a plurality of channels;

a meter coupled to the tuner, wherein the meter is arranged to detect a media link embedded in a program carried in a channel tuned by the tuner and to extract a broadcast signature from the program; and

a comparator arranged to generate a subset of reference signatures from a library of reference signatures based upon the media link, and to compare the broadcast signature extracted by the meter to the subset of reference signatures.

25. (Cancelled)

26. (Previously Amended) The program identification system of claim 24 wherein the media link is a URL.

27. (Previously Amended) The program identification system of claim 24 wherein the media link is a code referenced to a URL.

28. (Previously Amended) The program identification system of claim 24 wherein the media link is a trigger.

29. (Previously Amended) A program identification system comprising:

a tuner tunable to at least one of a plurality of channels;

a meter coupled to the tuner, wherein the meter is arranged to detect closed captioning information from a program carried in a channel tuned by the tuner and to extract a broadcast signature from the program; and

a comparator arranged to compare the broadcast signature to a reference signature, wherein the reference signature is selected from a library of reference signatures based upon the closed captioning information.

30. (Previously Amended) The program identification system of claim 24 wherein, if the broadcast signature does not have an embedded media link, the comparator is arranged to generate a second subset of reference signatures from the library of reference signatures based upon a hash code, and to compare the broadcast signature extracted by the meter to the second subset of reference signatures.

31. (Previously Presented) The program identification system of claim 24 wherein the reference signature includes an identification of the program.

32. (Previously Presented) The program identification system of claim 24 wherein the broadcast signature includes the channel and a time at which the broadcast signature is extracted.

33. (Previously Presented) The program identification system of claim 32 wherein the reference signature includes an identification of the program.

34-47. (Cancelled)

48. (Previously Presented) The detection apparatus of claim 1 wherein the media link is a hyperlink.

49. (Previously Presented) The data acquisition system of claim 10 wherein the media link is a hyperlink.

50. (Previously Presented) The program identification system of claim 24 wherein the media link is a hyperlink.

**IX. Evidence Appendix**

No evidence under 37 C.F.R. § 1.130, 1.131, or 1.132 is being relied upon. The evidence relied upon is reflected in the following table.

| <b>Reference</b>            | <b>Entered in Record</b>   |
|-----------------------------|--|
| Thomas, US Patent 5,481,294 | See PTO-1449 received at PTO on<br>1/23/02, considered by Examiner on<br>4/5/4 |
| Lert, US Patent 4,230,990   | See PTO-1449 received at PTO on<br>1/23/02, considered by Examiner on<br>4/5/4 |
| Lert, US Patent 4,677,466   | See PTO-1449 received at PTO on<br>1/23/02, considered by Examiner on<br>4/5/4 |

Copies of the above-noted evidence are attached hereto.

**X. Related Proceedings Appendix**

None.

## **EVIDENCE IDENTIFIED IN EVIDENCE APPENDIX**

AF 2611  
tjw



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants:

**HARKNESS et al.**

Serial No.: 09/955,691

For: DETECTION OF MEDIA  
LINKS IN BROADCAST  
SYSTEMS

Filed: September 19, 2001

Group Art Unit: 2611

Examiner: Jason P. Salce

) I hereby certify that this paper is  
) being deposited with the United  
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) Patents, P.O. Box 1450,  
) Alexandria, VA 22313-1450 on  
) this date:

**February 14, 2005**

*James A. Flight*  
James A. Flight

Registration No. 37,622

Attorney for Applicant

**REPLY TO NOTICE OF NON-COMPLIANT BRIEF**

Mail Stop Appeal Brief  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

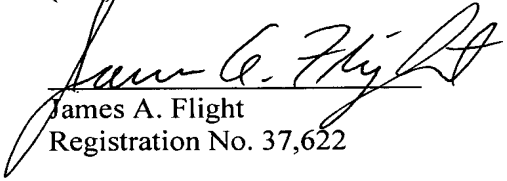
In response to the Notice of Non-Compliant Brief mailed January 13, 2005, the applicants hereby respectfully submitted the attached Appeal Brief in triplicate. The attached Appeal Brief has been amended to address all of the reasons for non-compliance identified in the notice.

If a petition for an extension of time is due in connection with this paper, please consider this to be such a petition and charge any fees due in connection with this submission to deposit account no. 50-2455. A duplicate copy of this paper is enclosed for this purpose.

Respectfully submitted,

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By:

  
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**February 14, 2005**